

August 1995

Clinical Center News

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New guidelines detail treatment strategies

Infections evading the weakened immune systems of people with HIV take an agonizing toll on life span and quality.

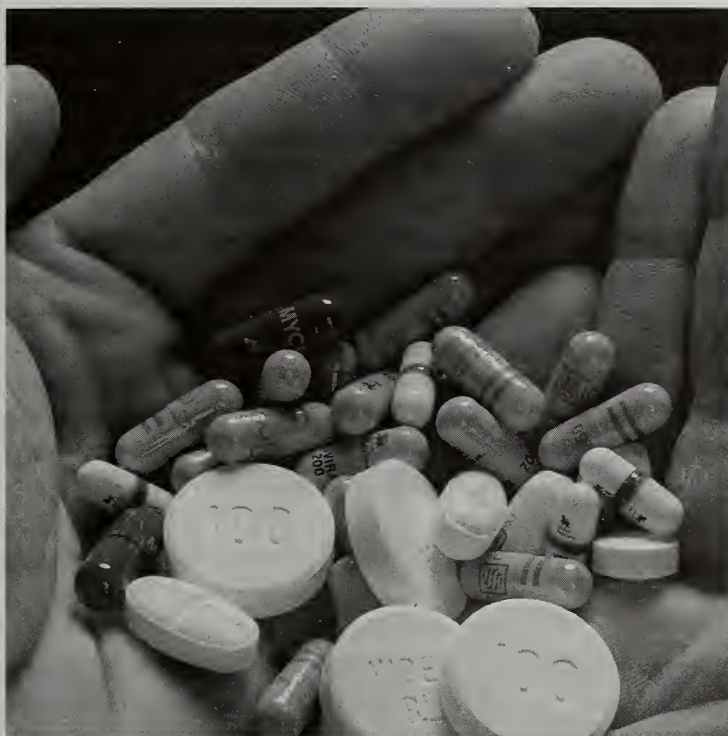
They are called opportunistic infections, and physicians now have for the first time a comprehensive set of guidelines for preventing the most prevalent and life-threatening ones.

The guidelines are result of a year-long cooperative effort by experts from the NIH, the Centers for Disease Control and Prevention (CDC), and the Infectious Disease Society of America (IDSA).

"The guidelines are a milestone in providing up-to-date information to help medical practitioners better treat patients with HIV," explains Dr. Henry Masur, chief of the CC Critical Care Medicine Department. "They are designed to provide primary-care physicians with practical advice on managing their patients with HIV."

Dr. Masur, along with Dr. Jonathan Kaplan of the CDC and Dr. King Holmes, IDSA, headed the panel charged with developing the guidelines. Panel members from NIH included Dr. Joseph Kovacs, CC Critical Care Medicine Department, and Dr. Michael Polis and Dr. Steven Schnittman, NIAID.

"Opportunistic infections continue to be a major cause of illness and death for people with HIV infection," Dr. Masur says. "They take advantage of the opportunity to cause infection in people whose



immune systems are weakened by an illness such as HIV or cancer. About 80 percent of all HIV patients eventually develop one or more of these infections, which diminish quality and duration of life, with substantial personal and economic consequences."

Considerable progress has been made over the past five years in understanding how those infections are acquired and what drugs and vaccines can reduce the likelihood that the infections will progress to clinical disease, he adds. "But, until these guidelines, there was no comprehensive strategy for

practitioners."

A patient-management strategy is essential to help maximize compliance with drug therapies and hold down costs while tailoring treatment plans that reflect findings of the most current clinical research. It's also designed to minimize the likelihood that infections will become resistant to drugs that are prescribed with little prospect of real benefit.

"The guidelines put into perspective many new drugs and drug strategies addressed in clinical trials by NIAID, CDC, and private

Recently developed guidelines for preventing opportunistic infections in people with HIV should help maximize compliance with drug therapies while tailoring treatment plans.

(Photo by Bill Branson)

Continued on the back page

Incident prompts safety checks in lab buildings

Water coolers in Clinical Center hallways and in other NIH lab buildings have been checked with Geiger counters and found free of radiation. The testing was done after last month's low-level radiation exposure of some employees in building 37, according to officials from the radiation safety branch, NIH Division of Safety.

The workers drank from a single bottled-water cooler that had been contaminated with radioactive phosphorous. Water coolers in the building's public areas subsequently were removed and no other cooler was found to be contaminated. The

building's drinking fountains also were tested and certified safe.

"The levels of radioactive material ingested by the employees who drank water from the contaminated cooler were well below federal annual occupational exposure limits," explains Robert Zoon, NIH radiation safety officer. "Those levels are not expected to result in any health impact."

In response to the incident, the radiation safety branch urges employees who bring food or drink into lab areas keep it locked away or in direct view.

They also stress strict observance

of standard security procedures involving radioactive material, including:

- Lock or secure unattended amounts of radioactive agents that exceed established limits.

- Maintain accurate records for receipt, use, and disposal of radioactive materials.

- Carefully monitor areas where radioactive materials are used.

Investigations of the incident are continuing through a collaborative effort among the NIH Division of Security Operations, the radiation safety branch, the Nuclear Regulatory Commission, and the FBI.

answers

(Editor's note: Dr. John Gallin, CC director, asked employees to send him job-related concerns and questions. CCNews will print Dr. Gallin's responses in a periodic series that continues this month.)

Comment: You've said that we won't contract out services unless it improves efficiencies and quality of care. Whose decision is it ultimately?

Response: My understanding is that ultimately the decision will be in the office of Secretary Shalala, based on recommendations from the Options Team. Those recommendations will be the result of a consensus we reach after exploring all possibilities of reorganizing and revamping how we do business here. The Options Team is exploring the full range of possible directions for the Clinical Center, the characteristics the CC will need to thrive in the future, and the full range of ideas that should be considered in permitting the CC to best do its job. My position as a member of the Options Team is that contracting

should be implemented only where it improves efficiency and quality of care without compromising our research mission.

Comment: Privatize the Clinical Center to eliminate the paralyzing federal regulations, reduce costs, improve procurement, and eliminate ineffectual personnel.

Response: The Options Team will work with representatives from NIH and other outside institutions to evaluate a number of ideas aimed at making sure the Clinical Center runs as efficiently as possible.

This team probably will examine many of the troublesome areas you mention. Our goal is to create an institution that is free of bureaucratic constraints. One way to achieve that

may be to have the CC become a testing ground or "reinvention laboratory."

Comment: What departments have been slated for contracting so far?

Response: No departments have been slated for contracting. Such steps will be considered only after a thorough evaluation of all possibilities.

Comment: I think the CC should stop hiring since the future is uncertain.

Response: Hiring new employees has decreased in the past month. However, certain positions must remain staffed in order to provide essential services here.

That will most likely remain the pattern until after the first of the year. In addition, I believe we must always look to initiate new programs of great importance.

Clinical Center
News

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Clinical Center News, Building 10, Room 1C255, National Institutes of Health, Bethesda, Maryland 20892. (301) 496-2563. Fax: 402-2984. Published monthly by the Office of Clinical Center Communications, Colleen Henrichsen, chief, for CC employees. News, article ideas, calendar events, letters, and photographs are welcome. **Deadline** for submissions is the second Monday of each month.



The right squirt

A chance to squirt fire extinguishers is a popular segment of annual fire safety training that's required for all Clinical Center employees. Stewart Tate (left), Department of Housekeeping and Fabric Care, and David Perry, Department of Diagnostic Radiology, were among those recently learning the proper way to operate a fire extinguisher. The fire and emergency response section of the NIH Division of Safety's emergency management branch conducts the training.

briefs

QTRC sets classes for September

The QTRC Hosts programs will take a new focus next month. Each month's program will be geared to one of four areas: team information, tools, success stories, and topics especially for employees new to QT. September programs include:

- Designing Quality Processes—Assuring Quality Outcomes, Sept. 14, 9:30 a.m., 2C116. This had originally been scheduled for June.

- Taking the Ball and Running With It: Reports on Completed QT Team Projects, Sept. 6, 9:30 a.m., 2C116; Sept. 12, 3 p.m., 2C310; and Sept. 19, 12:30 p.m., 2C116.

For more information or to suggest topics for future programs, call Rona Buchbinder at 496-6219.

Volunteers needed

Planning meeting for the Fourth Annual Great Pumpkin Chase is set for noon on Aug. 17 in room 2C116. The 5K run benefits the Friends of

the Clinical Center (FOCC).

Volunteers to help with planning and coordination are needed. To help, call R&W at 496-6062 or FOCC at 402-0193.

Courses offered

The education and training section, Office of Human Resources Management, will offer the following classes next month:

- Individual Differences in the Work Place, An Introduction to the Myers-Briggs Type Indicator (MBTI), Sept. 13, 9 a.m.-3:30 p.m., 6100 Executive Blvd. Participants will learn about MBTI theory; discuss how they perceive and relate to the world; gain insight into appreciating and valuing the differences in others; and acquire skills to build relationships with a variety of people.

- Supervisory Discussion Program, Sept. 15, noon-1 p.m., 2C310. This lunch-time discussion program offers supervisors an opportunity to network, share

information, exchange ideas, and discuss issues of concern.

For details on these and other classes, call 496-1618.

Public wants more, survey indicates

At a time when the national focus is on deficit reduction and budget cuts, spending on medical research has surfaced as a national priority that the American public values and warns should not be cut. This and other findings were part of a nationwide Louis Harris poll conducted this summer by Research!America.

The poll indicates that 65 percent of Americans oppose cuts in medical research dollars and 73 percent would pay higher taxes to support more medical research. More than 90 percent endorse our country maintaining its position as a world leader in medical research while 61 percent would like to see more medical research information in the print and broadcast media.

A multidisciplinary CC nutrition support team is making it easier for physicians to individualize and monitor nutritional support for their patients. Among team members are (from left) Dr. Fred Ognibene, Debbi Medin, Melissa Zafonte, and Sara Bergerson.



Team addresses complex nutritional needs

Young patients with HIV sometimes need it to help keep their bodies from wasting away. Bone marrow transplant and chemotherapy patients may require it because they're often too sick to eat.

It's specialized nutritional support given in one of two ways. In enteral—or tube—feedings, liquid formulas go directly into the stomach. With total parenteral nutrition (TPN), nutrients are provided by IV into the bloodstream. A multidisciplinary Clinical Center nutritional support team is making it easier for physicians to individualize and order nutritional support for their patients and to monitor how effective the feedings are.

Making sure patients have the right amount of nutrients is crucial to the healing process, points out Dr. Fred Ognibene, a Critical Care Medicine physician on the metabolic cart consult service, a part of the nutritional support team. The service's physicians, dietitians, pharmacists, and critical care therapists work closely together to customize the formula that will

provide the exact number of calories a referred patient needs.

There's a fine balance to adequate nutrition, he says. "If underfed, the patients lose weight, the healing process is impaired, and the immune system altered. Overfeeding causes organs to work harder than they should. TPN is expensive. It's a drug. And it's cost effective to give it as a tailored, individualized therapy."

Team members developed a handbook with guidelines on determining caloric needs. But the standards don't always fit. That's where the team's metabolic cart service comes in. This consult evaluation service offers physicians a way to precisely measure a patient's nutritional needs.

"The metabolic cart service was an outgrowth of the whole initiative to develop standards in nutritional support at the Clinical Center," says Sara Bergerson. She and Melissa Zafonte, clinical research dietitians in the CC Nutrition Department, are team members.

"A metabolic cart study lets us determine exact calorie needs by

measuring a patient's energy expenditures. We customize TPN here at the Clinical Center. Our patients are unique and often require specialized solutions."

Dr. Gregory Susla, critical care pharmacist, CC Pharmacy Department, calls it fitting the bottle to the patient rather than fitting the patient to the bottle. "We design each solution to meet the individual needs of each patient."

The 30-minute test done by a critical care therapist measures how much oxygen the patient breathes in and how much carbon dioxide is breathed out. That data tells team members the patient's exact calorie needs at rest.

"It's important to have resting levels of oxygen and carbon dioxide without any challenge," says Debbi Medin, critical care therapy clinical specialist. "The data has to be collected correctly in order to be interpreted correctly."

For more information on nutritional support team services, call 496-1520.



Fresh coat

Some 80,000 square feet of Clinical Center walls have a fresh coat of creamy white paint while 192 elevator doors have been spruced up with beige. As part of a CC program to improve the appearance of public areas, ACRF elevator lobbies, the east and west towers, and the bridge have been painted top to bottom, along with Diagnostic Radiology and the first floor's north corridor. About 40,000 square feet of walls, 320 doors, and 120 elevator doors remain to be painted. The brushes will fly next in the main elevator lobby, and elevator lobbies in the B and D corridors. Then the painters will move to the CC's main stairwells and high-traffic restrooms on the first and second floors.

New name reflects program's expanded mission

A Clinical Center program that matches volunteer research subjects with specific protocols has a new name and a broader mission.

On Aug. 1, the CC normal volunteer program became the Clinical Research Volunteer Program, explains Dottie Cirelli, acting program chief.

"The new name reflects more accurately the expanse of services we offer to the institutes," she says. "We recruit volunteers to be control subjects for specific research protocols. A protocol may require participants who are free of a specific disease or syndrome. Other researchers may need volunteers who have a specific condition. The program is interested in recruiting those volunteers as well."

The program will also establish a volunteer registry for participants and coordinate payments. Until now there has been no single program to track a volunteer's record of participation in protocols. "Some volunteers have been paid by the Clinical Center, others by the individual institutes," Cirelli points out. "The registry, which is expected to be in operation by early October, will allow institutes have a record of each protocol a volunteer participants in. That insures the safety of the volunteers and the

integrity of the research."

Healthy or "normal" volunteers, Cirelli explains, are necessary to provide scientists with data on how the healthy body functions.

"Historically, the program has recruited these volunteers from the local area and a cadre of university students from around the country who apply for participation as volunteers

through a cooperative agreement that affords them laboratory work experience."

The office coordinates recruitment and placement of about 6,500 volunteers annually. "These volunteers play a critical role in advancing medical science," Cirelli adds. For more information on the program, call 496-4763.

Need grows for O-positive blood, CC's most transfused type

It's the most transfused blood type at the Clinical Center.

"Sixty-three percent of the blood transfusions performed here last quarter were of O-positive blood," explains Keith Redmond, donor resources supervisor for the NIH Blood Bank.

The main reason for that is simple—it's the most common blood type. "Forty-five percent of the general population has O-positive blood. About a third of the NIH pool of 2,200 blood donors has that type."

In a typical month, the Blood Bank provides blood and blood components for patients with a variety of needs, including chronic

anemia associated with sickle cell disease, thalassemia, aplastic anemia, and cancer. Surgery patients need blood, as do those with immunologic deficiencies.

"Patients receiving bone marrow transplants require approximately two units of red blood cells each week, and the preferred blood type in the immediate post-transplant period is of group O," Redmond points out.

"We try to keep at least 75 units of O-positive blood on hand at all times," he adds, "and the demand for that type is growing." To help the Blood Bank continue to meet that need, consider becoming a blood donor. Call 496-1048 for details.

Safety, adequate patient parking goals of new garage procedures

New parking procedures now in effect for the Clinical Center's parking garages are aimed at preserving heightened security for the building while assuring adequate parking for patients.

Guards are now posted at the entrances to employee parking on P1 and P2 weekdays from 6 a.m.-6 p.m. A guard will monitor P3, the patient parking level, round-the-clock. All interior gates will be closed 6 a.m.-6 p.m.

Government buildings have been under a maximum security alert following the April 19 bombing of the federal building in Oklahoma City. At the Clinical Center that meant closing two of the three entrances to

underground parking.

"Patients and employees were routed into the garage through the P3 entrance, which is reserved for patients and their visitors and some contractors," explains Walter L. Jones, CC deputy director for management and operations.

"Unfortunately, some employees stopped in the P3 level rather than proceeding to P1 and P2. That meant that some patients were unable to park and missed appointments."

To further safeguard parking for patients and their visitors, a computer terminal soon will be installed at the P3 guard station. "This will allow security personnel to verify who is authorized to park in P3," Jones

adds. "Patients need to feel confident that they will be able to find a place to park that allows easy access to the hospital and clinics. Parking is one worry patients should not have to face."

Jones notes that directional signage in the parking garages is being upgraded to be consistent with designations inside the building and to minimize confusion. "We're also upgrading the signs at each of the three underground parking entrances so that it will be clear who is authorized to park where."

Parking on the P3 level also includes spaces for blue-stickered contractors who repair equipment in building 10, parking for consultant permit holders, and for disability permit holders. P1 is for red and patient-care parking permit holders. Employees with black or red stickers can park in P2, as can carpoolers.

Repair project designed to stem leaks when it pours

When it rains, it often pours in certain areas of the Clinical Center. But the flow is about to be stemmed.

A three-month project funded by the Clinical Center is designed to eliminate some vexing leaks and seeps—and the resulting costly repair bills—around the 42-year-old building and the Ambulatory Care Research Facility (ACRF) completed in 1981.

"The project is part of our continuing efforts to improve the environment for those who work and receive care in the Clinical Center," explains Ray Bowen, CC building services assistant manager.

Expected to begin this month, the project will focus on three areas: chronic leaks around ACRF windows, water seepage at ramps in the Department of Transfusion Medicine, and leaks from the glassed-in "pond" adjacent to Lipsett Amphitheater.

The ACRF windows were designed so that any rainwater trickling down the glass panes and into the frames would be routed outside the building, says Marlin Potter, project officer for the NIH

"The design can be used when any Clinical Center window needs repair."

Division of Engineering Services, design and construction branch. Instead, the water tends to drain inside. Engineers and architects have devised a repair that will let the windows work as they were designed to function. "The repair design can be used when any Clinical Center window needs repair," Potter points out.

"There's currently not enough drainage around or within the ramp used for equipment and emergency exit at the northwest corner of the blood bank," Potter says. "In heavy rains, water floods beneath the double doors." The project will include construction of a new ramp with improved drainage and will provide handicapped access.

Originally designed to serve as grand-scale aquarium, the "pond" near Lipsett Amphitheater was never intentionally filled with water.

"When it rains, water seeps into the adjacent first-floor offices and leaks into the garage," Potter explains.

The pond project will involve removing the granite floor and installing a waterproofing system. "The glass prism sculptures will be removed for safekeeping," Potter adds, "and will be put back in place along with the original granite floor. The area will no longer be designed to hold water, but it will be designed to drain water away from offices and the garage."

Also in the works this summer is a project to provide positive air pressure for stairwells five, seven, and nine. This will prevent smoke from entering the stairwells in case of fire, a Joint Commission on Healthcare Organizations mandate. Seven fans will be installed outside stair five, which is in corridor B, Potter says. Similar systems have been designed for stairwells seven and nine, which are in corridors C and D.

Wages weighs career in a special place

Bettye Wages always knew the Clinical Center was a special place.

"The minute I walked into this building, I felt a difference. Where I had worked before, libraries were off limits to medical technologists, we were not viewed as professionals, but we were treated as professionals here," she explains. "And that makes a big difference."

Perhaps that's one reason Wages stayed for 30 years.

Having graduated from the University of Louisville in 1962, Wages, chief medical technologist for Clinical Pathology's hematology service, left her hometown for Washington, D.C. "I was just passing through, on my way, eventually, to California. But, I took a job at Children's Hospital and met my future husband, so I stayed."

Seven months later, she moved to a job at Walter Reed Medical Center working as a bench tech, a generalist in hematology. But the NIH was where she wanted to be. So when a coworker mentioned that NIH was hiring, she quickly sent off her SF-171. That was 1964.

Since then, Wages has held several jobs in the Clinical Pathology Department. In 1968, she worked with hematology's electron microscope and in 1969 became supervisor of the morphology service, a position she held until 1979 when she assumed her present position.

Wages has seen a lot of changes in her three decades here. "When I first came here, women and minority doctors were rare. People smoked in the labs back then. Can you imagine that today? Mouth pipetting, eating in the lab, drawing blood and working with blood without gloves were common practices."

She points out that computers and other electronic devices have changed the whole field of medical technology—cells were counted manually before. Now everything is automated. One instrument can count red and white cells and platelets.

In the beginning of Wages'



Bettye Wages retires this month after a 30-year CC career.

tenure here, Clinical Pathology was located on the fourth floor. Part of the hematology lab later moved to the fifth floor and staffers were always going up and down. In 1980, the labs were reunited in new space on the second floor where they are located now.

"In the 1970s leukemia studies were big, now it's lymphoma and AIDS," Wages recalls. "In 1980 the first AIDS specimens were shipped to us."

In 1978, Wages left the CC to get a second bachelor's degree, in business, from the University of Maryland. You can see the influence her management training had from the books in her office—"1001 Ways to Reward Employees" and "Driving Fear From the Workplace" sit prominently on her desk.

To Wages, the CC has been more than a place to work. "When something bad happens in your life, a loved one dies, someone is ill, the

people here offer a shoulder to cry on. I would come into work at those times purposely because of the support. Other people say the same thing. I never saw a better place to work."

Wages, who with help from her husband, John, has raised three children and is grandparent to four, has retirement plans that also include kids. When she says goodbye to the Clinical Center she'll say hello to Bowie State and a master's program in psychology.

"There is so much going on. People never get quiet, everything is packed with action, with noise. Children aren't learning, there's too much distraction. I want to work with kids and help them understand personality differences, and help them learn. To improve their self-esteem."

Bettye Wages is ready to make more changes.

—by Laura Bradbard

... guidelines address environmental, treatment issues

Continued from page one

industry," Dr. Masur says. "These new trends have been presented only recently at meetings or published in journals, making it difficult for many practitioners and patients to remain abreast of important findings."

About 100 microorganisms—viruses, bacteria, fungi and protozoa—can cause opportunistic infections in people with HIV. The guidelines specify drug therapies to help avert or mitigate 17 most commonly seen infections, including *Pneumocystis carinii* pneumonia, tuberculosis, and *Mycobacterium avium* complex. They establish a priority for drug regimens and immunizations while explaining specific ways to assess and avoid environmental exposure to other infections.

The guidelines also detail risks associated with work, hobbies, pets and animals, food and water, and travel.

"The health-care team needs to delve more deeply into a patient's life and habits to uncover what environmental exposures can be minimized," explains Dr. Kovacs.

"A patient with a pet kitten, for

"Opportunistic infections continue to be a major cause of illness and death for people with HIV infection"

example, needs to be careful around the cat's litter box since toxoplasmosis can be spread by contact with the animal's feces," he says. "Cryptosporidium and other gastrointestinal infections are often waterborne. To avoid these infections, patients should take precautions with drinking water or swimming in streams, lakes, and rivers here and abroad."

The guidelines stress early diagnosis of HIV infection and encourage HIV testing for all pregnant women. "This is important because once HIV is diagnosed, preventing opportunistic infections is a critical part of the patient's health-care program," Dr. Masur adds.

For the past year panel members sought advice and recommendations from PHS agencies, professional

health-care organizations, community groups, and AIDS patients to detail a comprehensive approach to preventing opportunistic infections in people with HIV.

The guidelines, which are available from the CDC National AIDS Clearinghouse at 1-800-458-5231, have been endorsed by PHS, IDSA, the American Academy of Pediatrics, the Infectious Diseases Society of Obstetrics and Gynecology, and the Society for Healthcare Epidemiologists of America.

They were published in a supplement of the August issue of IDSA's journal, *Clinical Infectious Diseases*. A summary appeared CDC's *Morbidity and Mortality Weekly Report's* Recommendations and Reports on July 14. An editorial on the guidelines was published in the *Journal of the American Medical Association* on July 28.

A major goal of the PHS, Dr. Masur notes, is to disseminate the guidelines to health-care providers and patients so that advances in disease prevention can benefit as many as possible.

—by Sara Byars

august

2 **Grand Rounds**
noon-1 p.m.
Lipsett Amphitheater
Rapid Diagnosis of
Mycobacterial Diseases
Frank G. Witebsky, M.D., CC;
Treatment of Lupus Nephritis,
James E. Balow, M.D., NIDDK

9 **Grand Rounds**
noon-1 p.m.
Lipsett Amphitheater
The Eyes Do Not Have It: The
Differential Diagnosis of
Hypercortisolism, Jack A.
Yanovski, M.D., Ph.D., CC;
Antimicrobial Resistance:
Have We "Progressed" to the
Post-Antibiotic Era?, David K.
Henderson, M.D., CC

16 **Grand Rounds**
noon-1 p.m.
Lipsett Amphitheater
An Autopsy of Cold-War
Medical Radiation
Experiments, Ronald D.
Neumann, M.D., CC; *Sinusitis:*
You Need This Like a Hole in
the Head! What's New and
What's Old, Robert S. Lebovics,
M.D., NIDCD

23 **Grand Rounds**
noon-1 p.m.
Lipsett Amphitheater
Immunotoxin Therapy for
Cancer, Lee H. Pai, M.D.,
NCI; *Defects in G Protein-*
Mediated Signal
Transduction in Human
Disease, Allen M. Spiegel,
M.D., NIDDK

30 **Grand Rounds**
noon-1 p.m.
Lipsett Amphitheater
Risk Management of
Anesthetic Practice, Karen S.
Williams, M.D., CC; *Update*
on Primary
Immunodeficiency Diseases,
David L. Nelson, M.D., NCI